

The causes of Infection

Microorganisms that cause infections are known as pathogens. They may be classified as follows:

1. **Bacteria** are minute organisms about one-thousandth to five thousandth of a millimetre in diameter. They are susceptible to a greater or lesser extent to antibiotics.
2. **Viruses** are much smaller than bacteria and although they may survive outside the body for a time they can only grow inside cells of the body. Viruses are not susceptible to antibiotics, but there are a few anti-viral drugs available which are active against a limited number of viruses.
3. **Pathogenic Fungi** can be either moulds or yeasts. For example, a mould which causes infections in humans is *Trichophyton rubrum* which is one cause of ringworm and which can also infect nails. A common yeast infection is thrush caused by *Candida albicans*.
4. **Protozoa** are microscopic organisms, but larger than bacteria. Free-living and non-pathogenic protozoa include amoebae and paramecium. Examples of medical importance include: *Giardia lamblia*, which causes enteritis (symptoms of diarrhoea).
5. **Worms** are not always microscopic in size but pathogenic worms do cause infection and some can spread from person to person. Examples include: threadworm and tapeworm.
6. **Prions** are infectious protein particles. All known prion diseases affect the structure of the brain or other neural tissue and all are currently untreatable and universally fatal. Example: A prion is responsible for Creutzfeldt-Jakob disease.